State of Utah

Department of
Environmental Quality

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DIVISION OF AIR QUALITY
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Director

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Lieutenant Governor

DAQE-IN2529001-04

February 27, 2004

Clark M. Mower
NEVCO Energy Company, LLC
620 South Main Street
Bountiful, Utah 84010

Dear Mr. Mower:

Re: Intent to Approve: Sevier Power Company's 270 MW Coal-Fired Power Plant, Sevier County – CDS A; ATT: PSD: NSPS, MACT, HAPs, TITLE IV MAJOR, TITLE V MAJOR
Project Code: N2529-001

The attached document is the Intent to Approve (ITA) for the above-referenced project. ITAs are subject to public review. Any comments received shall be considered before an Approval Order is issued.

Future correspondence on this Intent to Approve should include the engineer's name as well as the DAQE number as shown on the upper right-hand corner of this letter. Please direct any technical questions you may have on this project to Mr. John D. Jenks. He may be reached at (801) 536-4459.

Sincerely,

Rusty Ruby, Manager
New Source Review Section

RR:JJ:re

cc: Central Utah Public Health Department
Mike Owens, EPA Region VIII

STATE OF UTAH

Department of Environmental Quality

Division of Air Quality

INTENT TO APPROVE: SEVIER POWER COMPANY'S 270 MW COAL-FIRED POWER PLANT

Prepared By: John D. Jenks, Engineer
(801) 536-4459
Email: jjenks@utah.gov

INTENT TO APPROVE NUMBER

DAQE-IN2529001-04

Date: February 27, 2004

Sevier Power Company

Source Contact
Clark M. Mower
(801) 298-7333

Richard W. Sprott
Executive Secretary
Utah Air Quality Board

Abstract

NEVCO Energy Company LLC has submitted a Notice of Intent (NOI) to construct and operate a 270 MW Circulating Fluidized Bed coal-fired steam electric plant. The plant will be equipped with limestone injection, dry-lime scrubber, selective non-catalytic reduction with ammonia injection and a baghouse for control of the various emissions. The source will be located in Sevier County, near the town of Sigurd Utah. Sevier County is an attainment area of the National Ambient Air Quality Standards (NAAQS) for all pollutants.

This project is a new major Prevention of Significant Deterioration (PSD) source. Onsite meteorological monitoring, air dispersion modeling, air quality impacts analysis including visibility and PSD class I and II impacts analysis, and a complete top-down Best Available Control Technology (BACT) review were completed and submitted as part of the NOI.

New Source Performance Standards (NSPS) and Maximum Achievable Control Technology (MACT) regulations apply to this source. Title IV of the 1990 Clean Air Act applies to this source. Title V of the 1990 Clean Air Act also applies to this source, with the requirement of submitting a Title V application within one (1) year of beginning operation.

The emissions, in tons per year, will increase as follows: PM_{10} 177.4, NO_x 1066.1, SO_2 547.3, CO 1278.6, VOC 53.4, HAPs 16.9.

The Notice of Intent (NOI) for the above-referenced project has been evaluated and has been found to be consistent with the requirements of the Utah Administrative Code Rule 307 (UAC R307). Air pollution producing sources and/or their air control facilities may not be constructed, installed, established, or modified prior to the issuance of an Approval Order (AO) by the Executive Secretary of the Utah Air Quality Board.

A 30-day public comment period will be held in accordance with UAC R307-401-4. A notice of intent to approve will be published in the Richfield Reaper on March 3, 2004. During the public comment period the proposal and the evaluation of its impact on air quality will be available for both you and the public to review and comment. If anyone so requests a public hearing it will be held in accordance with UAC R307-401-4. The hearing will be held as close as practicable to the location of the source. Any comments received during the public comment period and the hearing will be evaluated.

Please review the proposed AO conditions during this period and make any comments you may have. The proposed conditions of the AO may be changed as a result of the comments received. Unless changed, the AO will be based upon the following conditions:

General Conditions:

1. This Approval Order (AO) applies to the following company:

Site Office	Corporate Office Location
Sevier Power Company, LLC	NEVCO Energy Company, LLC
1200 West Substation Road	620 South Main Street
Sigurd, Utah 84657	Bountiful, Utah 84010
Phone Number (801) 298-5000	
Fax Number (801) 298-7333	

The equipment listed in this AO shall be operated at the following location:

1200 West Substation Road, Sigurd, Utah 84657

Universal Transverse Mercator (UTM) Coordinate System: UTM Datum NAD27
4,299.9 kilometers Northing, 414.9 kilometers Easting, Zone 12

2. All definitions, terms, abbreviations, and references used in this AO conform to those used in the Utah Administrative Code (UAC) Rule 307 (R307) and Title 40 of the Code of Federal Regulations (40 CFR). Unless noted otherwise, references cited in these AO conditions refer to those rules.

3. The limits set forth in this AO shall not be exceeded without prior approval in accordance with R307-401.

4. Modifications to the equipment or processes approved by this AO that could affect the emissions covered by this AO must be reviewed and approved in accordance with R307-401-1.

5. All records referenced in this AO or in applicable NSPS or MACT standards, which are required to be kept by the owner/operator, shall be made available to the Executive Secretary or Executive Secretary's representative upon request, and the records shall include the five-year period prior to the date of the request. Records shall be kept for the following minimum periods:

A.	Emission inventories	Five years from the due date of each emission statement or until the next inventory is due, whichever is longer.
B.	All other records	Five years

6. Sevier Power Company, LLC (SPC) shall install and operate the 270 MW Circulating Fluidized Bed (CFB) Boiler and associated equipment and shall conduct its operations of same in accordance with the terms and conditions of this AO, which was written pursuant to SPC's Notice of Intent submitted to the Division of Air Quality (DAQ) on January 29, 2003 and additional information submitted to the DAQ on April 16, 2003, July 2, 2003, September 10, 2003, October 31, 2003, December 5, 2003 and February 25, 2004.

7. The approved installations shall consist of the following equipment or equivalent*:

A. Coal Handling Equipment
Coal storage pile
Five (5) coal storage silos
Coal truck unloading hopper
Coal crushing building
Coal transfer conveyors

B. Lime Handling Equipment
Lime storage silo
Lime conveyor

C. Limestone Handling Equipment
Limestone storage silo
Limestone conveyor

D. Ash Storage and Handling
Two (2) ash storage silos
Ash pickups
Ash conveyors
Truck transfer points

E. Circulating Fluidized Bed Combustor
Drum type CFB boiler
Fluidized bed heat exchangers
Natural gas startup burners
Air-cooled condenser**
Stack (at least 460 feet in height as measured from base of stack)

F. Control Equipment
Induced draft baghouses and cartridge-type particulate filters at all material transfer points
Silo baghouses
Ash recycle cyclones**
Dry-lime scrubber
Selective non-catalytic reduction (using)
Ammonia injection system with ammonia storage tank
Primary stack baghouse

G. Steam System**
Water treatment**
Turbine generator**
Air heater**

H. Associated Equipment
Diesel-fired emergency fire pump
Diesel-fired emergency generator
Diesel storage tanks

* Equivalency shall be determined by the Executive Secretary.

** This equipment is listed for informational purposes only. There are no emissions from this equipment.

8. A manometer or magnehelic pressure gauge shall be installed to measure the differential pressure across the main stack fabric filter (baghouse). Static pressure differential across the fabric filter shall be between 0.5 to 12 inches of water column. The pressure gauge shall be located such that an inspector /operator can safely read the indicator at any time. The reading shall be accurate to within plus or minus 1.0 inches water column. The instrument shall be calibrated according to the manufactures instructions at least once every 12 months. Continuous or intermittent recording of the reading is not required.

9. SPC shall notify the Executive Secretary in writing when the installation of the equipment listed in Condition #7 has been completed and is operational, as an initial compliance inspection is required. To insure proper credit when notifying the Executive Secretary, send your correspondence to the Executive Secretary, attn: Compliance Section.

If construction and/or installation has not been completed within eighteen months from the date of this AO, the Executive Secretary shall be notified in writing on the status of the construction and/or installation. At that time, the Executive Secretary shall require documentation of the continuous construction and/or installation of the operation and may revoke the AO in accordance with R307-401-11.

Limitations and Tests Procedures

10. Emissions to the atmosphere at all times from the indicated emission point(s) shall not exceed the following rates and concentrations:

Source: (main boiler stack)

Pollutant	lb/mmBTU	Averaging Period
SO_2	0.05	24-hour rolling
SO_2	0.022	30-day rolling
NO_x	0.1	24-hour rolling
H_2SO_4	0.0024	24-hour rolling

Source: (main boiler stack)

Pollutant	lb/hr	Averaging Period
PM_{10}	39.0	24-hour rolling
CO	292.0	1-hour

11. Stack testing to show compliance with the emission limitations stated in the above condition shall be performed as specified below:

A.

Emissions Point	Pollutant	Testing Status	Test Frequency
(main boiler stack)	PM_{10}	*	&
	SO_2	*	#
	NO_x	*	#
	CO	*	#
	H_2SO_4	*	@

B. Testing Status (To be applied to the source listed above)

* Initial compliance testing is required. The initial test date shall be performed as soon as possible and in no case later than 180 days after the start up of a new emission source, an existing source without an AO, or the granting of an AO to an existing emission source that has not had an initial compliance test performed. If an existing source is modified, a

compliance test is required on the modified emission point that has an emission rate limit.

@ Test every five years. The Executive Secretary may require testing at any time.

& Test every year. The Executive Secretary may require testing at any time.

Compliance shall be demonstrated through use of a Continuous Emissions Monitoring System (CEM) as outlined in Condition #22 below. The Executive Secretary may require testing at any time.

C. Notification

The Executive Secretary shall be notified at least 30 days prior to conducting any required emission testing. A source test protocol shall be submitted to DAQ when the testing notification is submitted to the Executive Secretary.

The source test protocol shall be approved by the Executive Secretary prior to performing the test(s). The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. A pretest conference shall be held, if directed by the Executive Secretary.

D. Sample Location

The emission point shall be designed to conform to the requirements of 40 CFR 60, Appendix A, Method 1, or other methods as approved by the Executive Secretary. An Occupational Safety and Health Administration (OSHA) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.

E. Volumetric Flow Rate

40 CFR 60, Appendix A, Method 2 or other testing methods approved by the Executive Secretary.

F. PM_{10}

For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Methods 201, 201a, or other testing methods approved by the Executive Secretary. The back half condensibles shall also be tested using the method specified by the Executive Secretary. All particulate captured shall be considered PM_{10}.

For stacks in which liquid drops are present, methods to eliminate the liquid drops should be explored. If no reasonable method to eliminate the drops exists, then the following methods shall be used: 40 CFR 60, Appendix A, Method 5, 5a, 5d, or 5e as appropriate, or other testing methods approved by the Executive Secretary. The back half condensibles shall also be tested using the method specified by the Executive Secretary. The portion of the front half of the catch considered PM_{10}

shall be based on information in Appendix B of the fifth edition of the EPA document, AP-42, or other data acceptable to the Executive Secretary.

The back half condensibles shall not be used for compliance demonstration but shall be used for inventory purposes.

G. Sulfur Dioxide (SO_2)

40 CFR 60, Appendix A, Method 6, 6A, 6B, 6C, or other testing methods approved by the Executive Secretary.

H. Nitrogen Oxides (NO_x)

40 CFR 60, Appendix A, Method 7, 7A, 7B, 7C, 7D, 7E, or other testing methods approved by the Executive Secretary.

I. Sulfuric Acid (H_2SO_4)

The test method shall be submitted for approval or may be assigned by the Executive Secretary.

J. Carbon Monoxide (CO)

40 CFR 60, Appendix A, Method 10, or other testing methods approved by the Executive Secretary.

K. Calculations

To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Executive Secretary, to give the results in the specified units of the emission limitation.

L. New Source Operation

For a new source/emission point, the production rate during all compliance testing shall be no less than 90% of the production rate listed in this AO. If the maximum AO allowable production rate has not been achieved at the time of the test, the following procedure shall be followed:

1) Testing shall be at no less than 90% of the production rate achieved to date.

2) If the test is passed, the new maximum allowable production rate shall be 110% of the tested achieved rate, but not more than the maximum allowable production rate. This new allowable maximum production rate shall remain in effect until successfully tested at a higher rate.

3) The owner/operator shall request a higher production rate when necessary. Testing at no less than 90% of the higher rate shall be conducted. A new maximum production rate (110% of the new rate) will then be allowed if the test is successful. This process may be repeated until the maximum AO production rate is achieved.

M. Existing Source Operation

For an existing source/emission point, the production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

12. Visible emissions from all emission points shall not exceed 20% opacity. Opacity observations of emissions from stationary sources shall be conducted according to 40 CFR 60, Appendix A, Method 9. For sources that are subject to NSPS, opacity shall be determined by conducting observations in accordance with 40 CFR 60.11(b) and 40 CFR 60, Appendix A, Method 9.

13. Initial emission testing for HCl, HF, fluorides, lead (Pb) and mercury (Hg) is required within 180 days of commencing operation. Testing shall be performed using the following methods for verification of BACT and section 112G of the Clean Air Act.

Emission	Testing Method*	BACT Design Rate
HCl	40 CFR 60, Appendix A, Method 26A	4.01 lb/hr
HF	40 CFR 60, Appendix A, Method 26A	0.005 lb/mmBtu
Fluorides	40 CFR 60, Appendix A, Method 13A	0.00019 lb/mmBtu
Lead (Pb)	40 CFR 60, Appendix A, Method 12 or 29	0.0000113 lb/mmBtu
Mercury (Hg)	40 CFR 60, Appendix A, Method 29	0.000004 lb/mmBtu

* or other testing methods approved by the Executive Secretary

The mercury content of any coal burned in any fuel burning process shall be monitored and recorded for each load of fuel delivered. Certification of fuels shall be either by Sevier Power Company's own testing or test reports from the fuel marketer. For determining mercury content in coal, American Society for Testing and Materials (ASTM) Method D3684-01 or other method approved by the Executive Secretary, is to be used.

If the initial emission testing for mercury is passed, the source can operate using coal with mercury content no greater than 110% of the tested mercury content without further emission testing. Coal with higher mercury content shall not be used until successful testing at this value has been completed. A new mercury content value of 110% of this tested value shall then be allowed without further emission testing.

14. Visible fugitive dust emissions from haul-road traffic and mobile equipment in operational areas shall not exceed 20% opacity. Visible emissions determinations for traffic sources shall use procedures similar to Method 9. The normal requirement for observations to be made at 15-second intervals over a six-minute period, however, shall not apply. Six points, distributed along the length of the haul road or in the operational area, shall be chosen by the Executive Secretary or the Executive Secretary's representative. An opacity reading shall be made at each point when a vehicle passes the selected points. Opacity readings shall be made 1/2 vehicle length or greater behind the vehicle and at approximately 1/2 the height of the vehicle or greater. The accumulated six readings shall be averaged for the compliance value.

15. The following production and/or consumption limits shall not be exceeded:

    A. 1,000,000 tons of coal burned per rolling 12-month period

    B. 2,700 tons of coal burned per day based on a 24-hour rolling average
    C. 4,000 gallons of diesel burned per rolling 12-month period

    To determine compliance with a rolling 12-month total the owner/operator shall calculate a new 12-month total by the twentieth day of each month using data from the previous 12 months. Records of consumption/production shall be kept for all periods when the plant is in operation. Production/consumption shall be determined by an operations logbook. The records of consumption/production shall be kept on a daily basis.

16. The emergency generator shall be used for electricity producing operation only during periods when electric power from the public utilities is interrupted, or for regular maintenance of the generator. Records documenting generator usage shall be kept in a log and they shall show the date the generator was used, the duration in hours of the generator usage, and the reason for each usage.

17. The diesel driven fire pump shall be operated on an emergency basis only, except for routine engine and fire system maintenance and training. Records documenting diesel driven fire pump usage shall be kept in a log and shall show the date the pump was used, the duration in hours of use, and the reason for each usage.

Roads and Fugitive Dust

18. The facility shall abide by all applicable requirements of R307-205 for Fugitive Emission and Fugitive Dust sources.

Fuels

19. SPC shall use coal as a primary fuel and natural gas as a startup fuel in the CFB boiler. The emergency generators and diesel-driven fire pumps shall use only #2 fuel oil as fuel.

20. The sulfur content of any coal burned in any fuel burning or process installation not covered by New Source Performance Standards for sulfur emissions shall contain no more than 1.0 pound sulfur per million gross Btu heat input for any mixture of coal. Similarly, the sulfur content of any fuel oil combusted shall not exceed 0.5% by weight.

The sulfur content shall comply with all applicable sections of R307-203. Certification of fuels shall be either by Sevier Power Company's own testing or test reports from the fuel marketer. Records of fuel supplier's test report on sulfur content shall be available on-site for each load delivered.

Methods for determining sulfur content of coal shall be those methods of the American Society for Testing and Materials

A. For determining sulfur content in coal, ASTM Methods D3177-75 or D4239-85 are to be used.
B. For determining the gross calorific (or Btu) content of coal, ASTM Methods D2015-77 or D3286-85 are to be used.
C. The sulfur content of fuel oil shall be determined by ASTM Method D-4294-89 or approved equivalent. Certification of fuel oil shall either be by SPC's own testing or test reports from the fuel oil marketer.

Federal Limitations and Requirements

21. In addition to the requirements of this AO, all applicable provisions of 40 CFR 60, New Source Performance Standards (NSPS) Subpart A, 40 CFR 60.1 to 60.18 and Subpart Da, 40 CFR 60.40a to 60.49a (Standards of Performance for Electric Utility Steam Generating Units for Which Construction in Commenced After September 18, 1978) and Subpart Y 40 CFR 60.250 to 60. 254 (Standards of Performance for Coal Preparation Plants) apply to this installation.

22. In addition to the requirements of this AO, all applicable provisions of 40 CFR 72, 73, 75, 76, 77 and 78 – Federal regulations for the Acid Rain Program under Clean Air Act Title IV apply to this installation.

Monitoring - Continuous Emissions Monitoring

23. SPC shall install, calibrate, maintain, and operate a continuous emissions monitoring system on the main boiler stack. SPC shall record the output of the system, for measuring the SO_2 emissions, the NO_x emissions and the CO emissions. The monitoring system shall comply with all applicable sections of R307-170; 40 CFR 60.13; and 40 CFR 60, Appendix B.

All continuous emissions monitoring devices as required in federal regulations and state rules shall be installed and operational prior to placing the affected source in operation.

Except for system breakdown, repairs, calibration checks, and zero and span adjustments required under paragraph (d) 40 CFR 60.13, the owner/operator of an affected source shall continuously operate all required continuous monitoring systems and shall meet minimum frequency of operation requirements as outlined in 40 CFR 60.13 and Section R307-170.

Records & Miscellaneous

24. At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any equipment approved under this Approval Order including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions.

Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Executive Secretary which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. All maintenance performed on equipment authorized by this AO shall be recorded.

25. The owner/operator shall comply with R307-150 Series. Inventories, Testing and Monitoring.

26. The owner/operator shall comply with R307-107. General Requirements: Unavoidable Breakdowns.

The Executive Secretary shall be notified in writing if the company is sold or changes its name.

Under R307-150-1, the Executive Secretary may require a source to submit an emission inventory for any full or partial year on reasonable notice.

This AO in no way releases the owner or operator from any liability for compliance with all other applicable federal, state, and local regulations including R307.

A copy of the rules, regulations and/or attachments addressed in this AO may be obtained by contacting the Division of Air Quality. The Utah Administrative Code R307 rules used by DAQ, the Notice of Intent (NOI) guide, and other air quality documents and forms may also be obtained on the Internet at the following web site:
http://www.airquality.utah.gov/

The annual emissions estimations below are for the purpose of determining the applicability of Prevention of Significant Deterioration, non-attainment area, maintenance area, and Title V source requirements of the R307. They are not to be used for determining compliance.

The Potential To Emit (PTE) emissions for this source are currently calculated at the following values:

Pollutant	Total PTE Emissions tons/year
PM_{10}	177.4
SO_2	547.3
NO_x	1066.6
CO	1278.6
VOC	53.4
HAPs	
HCL	16.9
Total HAPs	24.7

The Division of Air Quality is authorized to charge a fee for reimbursement of the actual costs incurred in the issuance of an AO. An invoice will follow upon issuance of the final Approval Order.

Sincerely,

Rusty Ruby, Manager
New Source Review Section